Previous psychology seminars

Previous psychology seminar speakers and topics

2017/2018

- 2018-04-06 Responsive support of aspirations predicts relationship growth and well-being
- 2018-02-02 Ethical quiz
- 2018-02-09 How language background contributes to reading difficulties and "achievement gaps"
- 2017-11-10 Again Empathy
- 2017-10-06 Meet the Staff (For all Psychology First-year undergrads)
- 2017-10-20 The long and short of personality stability and change
- 2017-10-30 Annual Birrell Lecture - Professor Jonathan Roiser
- 2017-09-29 Meet the Staff (For all PPLS and Cognitive Science MScs)
- 2017-05-12 Do Non-Linguistic Creatures have a Fodorian (Logic-Like/Language-Like) Language of Thought?
- 2017-03-17 Origins of the human mind viewed from the study of chimpanzees
- 2017-03-24 Testing your memory: The many consequences of retrieval on long-term learning and retention
- 2017-03-31 Active inference and artificial curiosity
- 2017-02-17 CALM and collected: A dimensional approach to developmental impairments of attention, learning and memory
- 2017-02-24 Cognitive adaptations for social exchange

2016/2017

- 2016-11-18 What Does Semantic Tiling of the Cortex Tell Us About Semantics?
- 2016-10-07 Joint Reasoning in Social Interaction: A Virtual Bargaining Approach

2015/2016

08 July 2016

"Paradoxes related to word retrieval in ageing" Professor Gitit Kavé (The Open University of Israel)

Abstract: Older adults often complain of difficulties in word retrieval. However, difficulties do not occur across all tasks to the same degree. The talk will discuss some paradoxical experimental results in an attempt to understand the effect of vocabulary knowledge and compensatory strategies on word retrieval in old age.

17 May 2016

JOHN MARSHALL LECTURE "Pathologies and Remedies in Sustaining Attention" Professor Ian Robertson (Trinity College Dublin)

Abstract: The ability to sustain attention over time is not just a central foundation for other cognitive functions but also is important in emotional control. Here I outline some of the underlying processes in sustaining attention, and the particularly strong role that the locus coeruleus/noradrenaline systems, and right hemisphere fronto-parietal networks, play in this. I further outline the role of these systems in self-awareness/self monitoring and end by showing how it is possible to improve the performance of these systems through behavioural methods as well as by brain stimulation.

28 April 2016

"When and why social influence shapes eating behaviour" Tegan Cruwys (University of Queensland)

Abstract: The social and social-psychological determinants of eating behaviour are often underestimated. In this talk, Tegan will review the evidence for how the food environment and social influence shape both healthy and unhealthy eating behaviour. We will then turn our attention to disordered eating, and explore how social norms about eating and

appearance are communicated among young women. Tegan will conclude by discussing her research on how social influence may be harnessed in the design of effective interventions to prevent eating disorders.

22 March 2016

"The Categorising Brain" Brad Love (University College London)

Abstract: How do we learn to categorise novel items and what is the brain basis of these acts? In this talk, I will discuss work using model-based fMRI analyses to understand how people learn categories from examples. Results indicate that the medial temporal lobe (MTL) plays an important role in both learning and recognition. I will consider a new method that allows one to use fMRI data to decide between competing cognitive models. The technique reveals that the basis of category knowledge is surprisingly concrete (i.e., exemplar or episodic) in nature. This technique allows one to unravel the contributions of different processes (e.g., top-down attention) in shaping observed behaviour. A follow-up study revealed that conceptual representations in the hippocampus are distorted in an adaptive fashion by top-down attentional influences. Finally, I will consider what these findings imply about the nature of the neural code given how imprecise fMRI is spatially and temporally.

15 March 2016

"Mechanisms underlying working memory capacity and fluid intelligence" Randall Engle (Georgia Institute of Technology)

Abstract: Working memory capacity and fluid intelligence are highly correlated at the latent construct level and some work, including work from my lab, have been interpreted as causal in nature meaning that individual differences in working memory capacity are responsible for differences in fluid intelligence. I will present a new approach which proposes that working memory capacity and fluid intelligence tasks reflect two different and opposing mechanisms are responsible for the two constructs and that they are so highly related because both rely on

executive attention/attention control.

08 March 2016

BIRRELL LECTURE "Memory and Emotion: Mental Imagery in Psychopathology" Emily Holmes (University of Cambridge)

Abstract: Mental imagery involves an experience like perception in the absence of a percept, such as "seeing in our mind's eye". Intrusive, affect-laden mental images cause distress across mental disorders: Intrusive memories and "flashbacks" to past trauma occur in post-traumatic stress disorder (PTSD), while "flash-forwards" to future suicidal acts or manic pursuits can occur in bipolar disorder. My clinical research group has an interest in understanding and treating maladaptive mental imagery via psychological therapies. To do this, we are curious about what we can learn from cognitive psychology and neuroscience to inform treatment development (e.g. Pearson et al, 2015). I will discuss recent work concerning intrusive memory encoding (Clark et al, 2016); disrupting memory reconsolidation via dual task interference to reduce the frequency of intrusive memories (James et al, 2015), alongside recent translational work with patient groups (e.g. Holmes et al, 2016). A broader vision for science-informed psychological treatment innovation will also be explored.

01 March 2016

"Source-constrained retrieval: Neural and behavioural evidence" Ed Wilding (Nottingham University)

Abstract: In this talk I will draw on behavioural and electrophysiological data that is relevant to the question of how people interrogate their memories and perhaps prioritise some memory contents over others. For both forms of data, inferences about how people interrogate their memories are based on assessments of the cognitive operations to which new (unstudied) words are subjected during memory retrieval tasks. The findings point to fruitful ways in which investigations of memory retrieval processing can be pursued.

22 February 2016

"Language and the brain : from one century to the next, from centres to margins" Jean-Francois Demonet (Université de Lausanne)

Abstract: From the pioneer times of the classical authors who hypothesized centres for word meaning or word images, the neuroscience of language evolved to much more comprehensive and sophisticated conceptualizations; however, the boundaries of the supposedly specific domain of language tend to be more and more uncertain regarding both the functional specificity and the precise implementation of cellular processing in the brain that support language functions.

09 February 2016

SEMPRE SEMINAR "The psychology of music: a state-of-the-art overview" Stephan Koelsch, Berlin & Lancaster (University of Bergen)

Abstract: This talk will introduce basic concepts of musical syntax (e.g., with regard to the processing of local and non-local dependencies), musical meaning (or "musical semantics"), and associations between musical syntax and musical meaning on the one hand, as well as emotion and action on the other. I will also present neurophysiological data, obtained with EEG or fMRI.

26 January 2016

"Culture and Neuroscience: Evidences and implications" Miguel Perez (University of Granada)

Abstract: One the main properties of human mind and brain is the flexibility with which it can adapt to changing environments. In that sense, culture, defined as a set of norms, values, and believes, is an important part of the environment. Neuroscience has only recently begun to study culture-related differences in human mind and brain and the first results indicate that important differences exist. These results could have relevant

implications and raise questions, for example: Do all humans use the same brain structures to add 4+6? Do all humans have the same memory functioning? These and other questions will be discussed in the presentation.

19 January 2016

"Somatosensory function and body representations in health and disease" Chris Dijkerman (Utrecht University)

Abstract: Somatosensory information is important not only for exploration of our immediate environment, but especially for informing us about our own body. During the last decade or so considerable progress has been made with respect to the underlying functional and neural mechanisms. In our lab we have investigated different aspects of body representation in neurological patients, patients with eating disorders and in healthy participants. In this presentation, I will discuss different components such as body size perception, body ownership and the role of affective touch.

12 January 2016

"How to get the most out of data with Bayes" Zoltan Dienes (University of Sussex)

Abstract: In order to measure how much evidence data provides for the null (H0) vs alternative (H1) hypotheses one needs to know what each predicts. Specifying what Ho predicts is easy; we already do that (it predicts e.g. a population difference of exactly zero). But in addition for any given test we need a model of H1, making clear its predictions (while at the same time appropriately respecting any vagueness in the relevant scientific knowledge). I will discuss different ways of getting a handle on modeling H1 and what we gain as researchers by knowing what our theories predict. Specifically, having a symmetric measure of evidence for H0 vs H1 solves some of the problems related to the credibility crisis in psychology.

01 December 2015

"Weight Illusions – what do they represent?" Dr Gavin Buckingham (Heriot-Watt University)

Abstract: How good are we at determining how heavy something is? It turns out that we're actually pretty poor at this simple-seeming perceptual task. Indeed, there are several compelling illusions in which various identically-weighted objects feel as if they weigh different amounts from one another. The size-weight illusion in particular, where small objects feel heavier than identically-weighted large objects, is poorly understood. Various studies seem to indicate that expectations cause the size-weight illusion, but the mechanisms behind this robust perceptual effect are not well understood. I will present data several studies examining weight perception normal, neuropsychological, and other special populations which might get us (incrementally) closer to understanding what drives our perceptions of heaviness.

17 November 2015

"Why the reproducibility movement is not enough to salvage the trustworthiness of psychological science" James Coyne (University of Pennsylvania)

Abstract: Registered replication reports and reproducibility initiatives represent important milestones in the struggle against the untrustworthiness of psychological science. They generate publicity and provide quantitative data concerning the extent of the problems we face. Yet their accomplishments should not be overestimated, and limitations of organized replication efforts as a general strategy of reform should not go unnoticed. Reproducibility initiatives are only suitable for some areas of research and risk overemphasis on the problems concentrated in these areas. Large bodies of clinical and policy-oriented research do not lend themselves so readily to efficient replication. Reproducibility initiatives favor collaboration with original investigators over insistence on greater

transparency in original reports. They potentially further ghettoize replications, protecting the existing publication practices of vanity journals.

Institutional agenda and the incentives they provide for publishing bad science remain intact and resistant to reform. Questionable publishing practices (QPPs) need to be given attention along with questionable research practices (QRPs). Some of the effort being put it into replications would better be directed to insisting on enforcement of existing commitments to preregistration of studies, reporting standards, data sharing, transparent reporting of all findings, and appeal processes for rejections of manuscripts. The Pottery Barn rule should be more strictly enforced. But an expanded Pottery Barn rule is warranted so that the trustworthiness of findings can more readily be assessed without formal replication and untrustworthy findings can be more readily corrected or eliminated from the literature.

10 November 2015

"Replicability in the Personality-Smoking-Mortality Mediation Pathway: An Integrative Data Analysis with 15 Studies" Dan Mroczek (Northwestern University)

Abstract: We coordinated an integrative data analysis of 15 long-term longitudinal studies (N=40,992), testing the effect of personality traits on mortality risk, and whether smoking behavior mediated these relationships. This study is of unique importance because of the use of a coordinated analysis design that can demonstrate if a given effect or set of effects can replicate across many studies. Our analyses show that the effects of personality on longevity do not appear sensitive to study-level differences (country of origin, length of follow up), indicating generalizable effects. Overall we found that neuroticism and conscientiousness were the strongest predictors of mortality, and to a somewhat lesser extent extraversion and agreeableness. We also found that smoking behaviors had a small mediating effect across the 15 studies, and we conclude that this

particular health-detrimental behavior plays a role in explaining the personality-mortality relationship.

03 November 2015

"Perception and action in People with central vision loss" Muriel Boucart (Lille Nord de France)

Abstract: Age-related macular degeneration (AMD) is a chronic retinal disease that leads to the loss of central vision. The end stage of AMD is the development of a central scotoma, which has a detrimental impact on many functions. Although reading and face perception are the most common clinical complaints of people with AMD, quality of life questionnaires indicate that central vision loss hinders the performance of many other activities of daily living, including driving, mobility, cooking, shopping, using public transportation, and watching TV. Whereas substantial research effort has been directed toward understanding the behavioral aspects of the impairment experienced by people with AMD in vision-related tasks such as reading and, face perception, little is known about the difficulties encountered by people with AMD in other tasks such as object and scene recognition and visual search in crowded environments. We will report a series of studies conducted in people with AMD, both in laboratory conditions involving limited exposure time and static images, and in more realistic conditions involving panoramic scenes covering the 180° of the visual field, dynamic scenes, and the execution of natural actions without time constraints. Studies in laboratory conditions show that scene recognition can be accomplished with high accuracy, though significantly lower than age-matched controls, by people with AMD. Interestingly, though visual exploration, as measured with an eye tracker, is different in people with AMD and in normally sighted age-matched controls, our data show that people with AMD exhibit little impairment in realistic daily life situations.

28 October 2015

Professor Sharon Abrahams, Personal Chair in Neuropsychology, will deliver her Inaugural Lecture "Mind Matters in Motor Neurone Disease".

Abstract: As a clinical neuropsychologist I have studied matters of the mind for 25 years, investigating the effects of brain changes, resulting from disease or injury, on thinking and behaviour. My work has focused on people living with a degenerative disease and in particular motor neurone disease. This disease was commonly thought to affect the system controlling movement exclusively, but our work has contributed to demonstrating that the mind matters in motor neurone disease and that a large number of people will experience changes in cognition and behaviour in addition to progressive physical disability. These symptoms correspond to changes in the brain in the frontal lobes which we have demonstrated using advanced imaging techniques.

In its extreme form people can suffer from frontotemporal dementia, a type of dementia which is characterised by marked changes in behaviour and personality. People may experience problems with their abilities to interact socially with those around them, a type of thinking called social cognition. Other people with disease do not show a full blown dementia but may suffer from more specific and subtle changes with poor performance on neuropsychological tests of higher order 'executive functions' involved in planning, decision making generating words and ideas and changes in language and social behaviour.

We have investigated and designed tests which can detect these brain changes efficiently, the most sensitive is a test of fluency where people think of words beginning with a given letter (e.g. M.. 'mind, matters, motor...'), others include measures of social cognition or apathy.

Despite this increased understanding of motor neurone disease as one which affects many systems, the cognitive status of the majority of people with the disease attending clinics was unknown. In response we have designed a quick and easy to administer screening measure to assess people in clinic which is now used being used across countries. The screen

is sensitive to these changes and can identify the needs of that individual and help to provide appropriate support.

19 October 2015

"Preferences in the embodied, fluency-loving, yet curiously rational mind" Piotr Winkielman (University of Warwick)

Abstract: What drives people's preferences? Much research emphasizes the role of seemingly irrational factors. One factor is mere motor resonance. For example, people tend to like those who mimic them. Further, social evaluations can be enhanced by simple features that make processing easy. For example, individuals with "average" facial features are more cognitively fluent and rated as more attractive and trustworthy. My talk challenges this "irrational" view and argues for the context-dependent, flexible and even rational nature of preferences. Specifically, I will show that mimicry, and judgments from it, are easily transformed by top-down inferences, generating a "dislike for the mimic" effect. Similarly, I will show that the impact of averageness on fluency and preferences can be reversed by top-down, categorical processes, generating an "ugliness-in-averageness" effect. Overall, my talk will call for a more dynamic and rational view of the links between cognition, emotion, and embodiment.

13 October 2015

"Hemispheric specialisation in gesture production" Hedda Lausberg (Cologne)

Abstract: In her seminal studies on hand preferences for free movements that accompany speech, Kimura (1973) proposed that the production of speech and gesture was controlled by a common system, which in right-handers was located in the left hemisphere. Accordingly, with a few exceptions, psycholinguistic theories propose that the production of co-speech gestures is linked to left hemispheric language production. However, recent empirical studies including individuals with brain damage cast doubt on the proposition that co-speech gestures are exclusively

generated in the left hemisphere. In this presentation, based on lesion studies evidence shall be presented that some types of gestures are produced in the right hemisphere, independently of left hemispheric language production.

06 October 2015

"The effect of learning to read on the neural systems for vision and language. A longitudinal approach with illiterate participants" Falk Huettig (Max Planck Institute for Psycholinguistics, Nijmegen)

Abstract: How do human cultural inventions such as reading result in neural re-organization? In this first ever longitudinal study with young completely illiterate adult participants, we measured brain responses to speech, text, and other categories of visual stimuli with fMRI before and after a group of illiterate participants in India completed a literacy training program in which they learned to read and write Devanagari script. A literate and an illiterate no-training control group were matched to the training group in terms of socioeconomic background and were recruited from the same societal community in two villages of a rural area near Lucknow, India. This design permitted investigating effects of literacy cross-sectionally across groups before training (N=86) as well as longitudinally (training group N=25). The two analysis approaches yielded converging results: Literacy was associated with enhanced, left-lateralized responses to written text along the ventral stream (including lingual gyrus, fusiform gyrus, and parahippocampal gyrus), dorsal stream (intraparietal sulcus), and (pre-) motor systems (pre-central sulcus, supplementary motor area) and thalamus (pulvinar). Significantly reduced responses were observed bilaterally in the superior parietal lobe (precuneus) and in the right angular gyrus. These effects corroborate and extend previous findings from cross-sectional studies. However, effects of literacy were specific to written text and (to a lesser extent) to false fonts. Contrary to previous research, we found no direct evidence of literacy affecting the processing of other types of visual stimuli such as faces, tools, houses, and checkerboards

(cf. Dehaene et al., 2010, Science). Furthermore, unlike in some previous studies, we did not find any evidence for effects of literacy on responses in the auditory cortex in our Hindi-speaking participants. The latter result in particular raises questions about the extent to which phonological representations in the auditory cortex are altered by literacy acquisition or recruited online during reading.